# BioSense Bulletin



# Welcome to the August Edition of the BioSense Bulletin

Welcome to the August edition of the BioSense Bulletin! July and August have been busy months for the BioSense Team. Version 2.10 of the BioSense Application was released, and several staff attended the NACCHO conference. Also, preparations for the upcoming PHIN conference are complete.

In the June Bulletin, we introduced a new feature, the BioQuestion. The first question was: How frequently would you like to receive the BioSense Bulletin? Results showed that most responders prefer a bimonthly bulletin so we will continue with that schedule. Many thanks to those who answered the BioQuestion. Look for our new question in this edition!

# BioQuestion

# Welcome Dr. Leslie Lenert!



Dr. Leslie Lenert, M.D., M.S. Director, National Center for Public Health Informatics

We extend a warm welcome to Dr. Leslie Lenert, M.D., M.S., the new Director of CDC's National Center for Public Health Informatics (NCPHI). As Director, he will provide overall leadership for NCPHI and for the many programs and services offered in this Center. Dr. Lenert has had a long, distinguished, and varied career. He has most recently served as Professor of Medicine at the University of California's School of Medicine in San Diego. He is the author of more than 90 peer-reviewed scientific publications and book chapters on a variety of medical and health-related topics.

Dr. Lenert is on the Board of Directors of the American Medical Informatics Association, and he has served on editorial boards of four leading medical informatics journals. He has also held notable positions in the Veterans Administration, the California Institute for Telecommunications and Information Technology, and the San Diego Healthcare System.

Welcome to CDC and NCPHI, Dr. Lenert!

# **BioSpotlight**

We are pleased to announce that Version 2.10 of the BioSense application was released in late July. The update included several enhancements to the "Patient Map" module. The updates will improve the look and feel of the patient map. The update added mouseovers that indicate a facility's name or zip code, city, county, state, count, total visits, and rate per 1,000 visits. "Drag and drop" functionality was also added to improve navigability.

Version 2.10 also includes a modification to improve the W2 statistical algorithm used in the BioSense application. This will improve results available in the "Statistical Anomalies" module. This method is more sensitive so users may want to increase the recurrence interval threshold setting used to identify anomalies.

Users will also have the ability to save line lists of patients available within the "Patient List" module in Excel format by clicking on the "save data" icon above the table.

Finally, stratified and grouped time series capabilities are available in the "Time Series" module. The default options available when you navigate to "Time Series" from the "Chief Complaints and Diagnoses" or "Statistical Anomalies" modules will allow you to group the graphs by data type (reason for visit/chief complaint/reason for admit, working diagnosis, final diagnosis) and to stratify the graphs by patient class (outpatient, emergency department, inpatient). This stratified display enables the user to view results for all data types and patient classes associated with a particular syndrome or sub-syndrome of interest in one display. Although this is the default, many other options are available by clicking on "Select Data" and choosing different options available under "Group by" and "Stratify by." If interested in drilling down on a particular graph line in the stratified display, simply click on that graph line to view the single time series display for the data of interest.





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# **BioBytes**

#### **BioSense Exhibits at NACCHO Conference**

BioSense exhibited at the National Association for County and City Health Officials (NACCHO) conference in Columbus, Ohio, July 11–13, 2007, in partnership with the Public Health Informatics Network (PHIN).

NACCHO is the national organization that represents the country's health departments by supporting efforts that protect and improve the health of all people and communities by promoting national policy, developing resources and programs, seeking health equity and supporting effective local public health practice and systems.

Over 1,200 NACCHO members and other public health stakeholders attended the conference to discuss topics related to the theme of "Health Equity and Environmental Public Health—From Local to Global." Many stopped by the exhibit booth to discuss the BioSense program with BioSense staffers Lazenia Harris and Melissa Bundy.

Melissa Bundy said it was "enjoyable and enlightening" to talk to NACCHO members. Because many of the attendees knew about BioSense or had used the application, she and Lazenia had great opportunities to listen to people's views about the program from a user and a stakeholder perspective.

#### **BioSense Roundtable Series Update**

As mentioned in the last Bulletin, the first BioSense Roundtable was held in Washington, D.C., June 19, 2007. The purpose of the roundtables, sponsored by the CDC in collaboration with the Association of State and Territorial Health Officials (ASTHO) and the National Association of County and City Health Officials (NACCHO), is to provide a forum where experts can collaborate on recommendations for moving the BioSense program forward.

This first meeting's goal was to identify core principles of BioSense and recommendations for guiding the BioSense program over the next few months. Discussion topics included BioSense's single principle value going forward, and how much data is enough. In addition, participants explored the extent to which BioSense can be successful as an emergency preparedness and response system and whether dual-purpose capacity might be an option in the future.

The next BioSense Roundtable has been scheduled for **November 8, 2007**.

#### Real-Time, Real-Talk Teleconference

The next Real-Time, Real-Talk teleconference will be held August 24, 2007 from 2-3 p.m. (EDT). This teleconference gives BioSense users a forum to get information about the program and to ask questions of BioSense leadership. The agenda for this call will include information about the new BioSense Request for Proposals (RFP) and an update about the Influenza Data Summary progress and plans for this flu season. The call in number is 1-877-784-7158, participant code 9244528.



Lazenia Harris discusses the BioSense program with an interested NACCHO Conference attendee.



**NACCHO Conference attendees** 

#### **BIOSTATS**

Currently, 371 hospitals send data to BioSense.

# **CONTACT US**

Please use this <u>email link</u> to contact us if you have any comments or questions regarding the BioSense









# BioBytes cont.

#### **PHIN Conference Overview**

The Fifth Annual Public Health Information Network (PHIN) conference will be held in Atlanta, Georgia August 27 – 29, 2007. PHIN is an initiative developed by CDC to promote and improve standards related to electronic information exchange. Through enhancing and developing best practices, PHIN strives to improve public health.

This year's conference is co-sponsored by the National Association of County and City Health Officials (NACCHO), the association that seeks to protect and improve the public's health through promoting national policy, developing resources and programs and supporting local public health practice and systems.

The theme of this year's conference is "Harmonizing Public Health Voices in National Health IT" and will feature workshops, informatics training and networking opportunities. Some of the topics covered will be an overview and update of the PHIN initiative, an overview of biomedical informatics, and a tutorial on integrating informatics principles into public health practice to facilitate information sharing.

This year, the PHIN Conference will be held at the CNN center in downtown Atlanta. A "family-friendly" conference the location is central to the Georgia Aquarium, Centennial Olympic Park, the newly renovated World of Coke museum and the Children's Museum of Atlanta. You can obtain more information about the conference on the PHIN website, www.cdc.gov/phin.

# **BioSolution**

#### How does CDC conduct its anomaly investigations?

The BIC uses an automated process developed in concert with the BioSense Monitoring Protocols Working Group to identify a subset of the data anomalies flagged by statistical algorithms each day. The criteria for investigation follows:

- A. Anomalies for >1 patient class (outpatients, emergency department, inpatients) within the past week at the same facility;
- B. Anomalies for >2 of past 3 days;
- C. Anomalies that have maximum rate or count within the foregoing 6 months (or since the facility began sending data for facilities with <6 months of data);
- D. Anomalies that exceed rate or count for the same period in the previous year; and
- E. Anomalies for >1 patient also maps to the severe illness/death syndrome.

Criterion A cannot be met by Department of Defense (DoD) and Veteran's Administration (VA) events as these data sources send outpatient data only or by hospitals that send emergency department data only. Criteria D cannot be met by any facility that has not been sending data for at least 13 months. The identified subset of anomalies is fully characterized by using other criteria not described here, either to rule out or to decide whether they might have public health importance.

The criteria for follow-up are continually being evaluated and refined. Although data anomalies are common, it is rare that any are associated with true public health events. The BioIntelligence Center (BIC) is primarily interested in characterizing events that are large in magnitude compared to historical data; that involve multiple jurisdictions; or that demonstrate unusual severity of illness. As we continue to improve our statistical algorithms, enhance spatial analysis, and refine and automate our criteria, our specificity should increase for identifying a subset of potentially important anomalies from the many hundreds that appear nationally in BioSense each week. Simultaneously, we shall decrease the time an analyst must spend in characterizing anomalies. In the future, it might be possible to enable users to filter anomalies to view in the BioSense application based on these or other criteria.





# BioSense **BIOSENSE BULLETIN**



# BioSchedule

#### **BioSense Training and Orientation Sessions**

Tuesday, September 4, 2007, 1:00 – 2:30 p.m. (EDT)

URL to join session: 9-04-07 Meeting

Audio conferencing (toll-free): +1 (866) 756-5589

Participant code: 2229244

Tuesday, September 18, 2007, 1:00 – 2:30 p.m. (EDT)

URL to join session: 9-18-07 Meeting

Audio conferencing (toll-free): +1 (866) 756-5589

Participant code: 22292

#### **Upcoming Conferences**

**Public Health Information Network** 

Atlanta, GA – August 27 – 29, 2007 www.cdc.gov/phin

**Creating a Global Partnership in Public Health Informatics** 

Seattle, WA – September 17 – 18, 2007

https://phi2007.cphi.washington.edu/

**Featured Speaker:** 

Dr. Robert Martin, Acting Director

**Division of Emergency Preparedness and Response** 

National Association of Local Boards of Health (NALBOH)

Anchorage, AK – September 18 – 21, 2007 www.nalboh.org

Association of State and Society Territorial Healthcare Officials (ASTHO)

St. Louis, MO - October 2 - 5, 2007

http://www.astho.org/

**International Society of Disease Surveillance (ISDS)** 

Indianapolis, IN – October 10 – 12, 2007

http://www.syndromic.org/



